

ABSTRACT OF THE DISCLOSURE

New techniques are disclosed for manipulating information to preserve certainty in the initial variables. Numbers themselves may be presented in a way that indicates their degree of certainty (and information content), and these numbers are processed so that the certainty and information content of the result is also known. Further calculations devoid of sufficient certainty can be terminated while others having greater information can continue. The invention may be implemented in any appropriate computing machine, such as a digital computer.

1. A method for manipulating information to preserve certainty in the initial variables, comprising the steps of: (a) presenting numbers in a way that indicates their degree of certainty (and information content); (b) processing these numbers so that the certainty and information content of the result is also known; and (c) terminating further calculations devoid of sufficient certainty while others having greater information can continue.